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HEAD-MOUNTED DISPLAY SYSTEM

Related Application

This is a Continuation-in-Part of U.S. Serial No. 08/287,970, filed on August 9, 1994, which is a Continuation of application No. 08/177,536, filed 9/23/1996, now abandoned, which is continuation of application No. 08/141,133, filed on October 22, 1993; the teachings of which all being incorporated herein by reference in their entirety.

10 Background of the Invention

Head mounted display systems have been developed for a number of different applications including use by aircraft pilots and for simulation such as virtual imaging. Head mounted displays are generally limited 15 by their resolution and by their size and weight.

Existing displays have relatively low resolution, and because of the size and weight of available systems, these displays are often positioned at the relatively large distance from the eye. Of particular 20 importance, is the desirability of keeping the center of gravity of the display from extending upward and forward from the center of gravity of the head and neck of the wearer, where it will place a large torque on the wearer's neck and may bump into other instruments 25 during use.

There is a continuing need to present images to the wearer of a helmet mounted display in high-resolution format similar to that of a computer monitor. The display needs to be as non-intrusive as 30 possible, leading to the need for lightweight and compact system. Existing head mounted displays have